BY ORDER OF THE SECRETARY OF THE AIR FORCE

DEPARTMENT OF THE AIR FORCE INSTRUCTION 90-802

20 JANUARY 2026

ELLSWORTH AIR FORCE BASE Supplement

18 JUNE 2026

Special Management

RISK MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: This publication is available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ AFSEC/SEG

Certified by: AF/SE (Colonel Michael A. Thomas)

Supersedes: DAFI90-802, 1 April 2019

Pages: 42

(ELLSWORTHAFB)

OPR: 28BW/SEG

Certified by: 28BW/SE (Lt Col Marc Finnegan)

Supersedes: AFI90-802_ELLSWORTHAFBSUP 1, 28 October 2020

Pages: 42

This instruction implements the Risk Management (RM) guidance within Air Force Policy Directive (AFPD) 90-8, *Environment, Safety, and Occupational Health Management and Risk Management,* and Headquarters Air Force Mission Directive (HAF MD) 1-46, *Chief of Safety.* It provides an overarching framework for Department of the Air Force Risk Management (DAF RM) and establishes the requirement to integrate and sustain RM throughout the Department of the Air Force (DAF) as a risk reduction process. DAF RM also assists leaders in identifying and controlling hazards to make informed decisions. This publication applies to all DAF civilian employees and uniformed members of the Regular Air Force, the Air Force Reserve, the Air National Guard, the United States Space Force (USSF), and those with a contractual obligation to abide by the terms of DAF publications. . This Department of the Air Force Instruction (DAFI) may be supplemented at any level, but all supplements must be routed to the Air Force Chief of Safety (AF/SE), **usaf.pentagon.af-se.mbx.af-se-workflow@mail.mil** for coordination prior to

certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the DAF Form 847, *Recommendation for Change of Publication;* route DAF Forms 847 from the field through the appropriate functional's chain of command. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program,* and are disposed of in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. The authorities to waive wing, delta, or unit-level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See Department of the Air Force (DAFMAN) 90-161, *Publishing Processes and Procedures,* Table A10.1, for a description of the authorities associated with the Tier numbers and waiver approval authority. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority. For compliance items directed above the wing, FOA or DRU level, submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to Air Force Safety Center, Occupational Safety Division (AFSEC/SEG) for variances and exemptions to non-tiered compliance items.

(ELLSWORTHAFB) DAFI90-802, 1 April 2019, Risk Management is supplemented as follows: This instruction establishes risk management program requirements for flight operations. It determines which wing office (28 Bomb Wing Safety (28 BW/SE)) will facilitate and monitor risk management (RM) principles, processes, policies and techniques as required by Major Command (MAJCOM) and/or wing-level policy. It establishes basic guidance when to use the AF Form 4437, *Deliberate Risk Assessment Worksheet.* Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-322, Records Management and Information Governance Program, 23 March 2020, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Send comments and suggested changes to this supplement through channels, using AF Form 847, *Recommendation for Change of Publication*, to 28 BW/SEG, 2300 Vandenberg Ct. Suite 121, Ellsworth AFB, SD 57706.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. This revision redefines RM as a continuous, integrated process rather than a standalone program. This shift emphasizes that RM is embedded in daily operations and decision-making, ensuring that risk assessment and mitigation are standard practice across the DAF. The revision also emphasizes Real-Time Risk Management (RTRM), providing detailed guidance on applying RM principles dynamically during operations. Several revisions were made to standardize the DAF RM Process with sister services RM processes, terms and applications. Adds Tier/Waiver requirements IAW DAFMAN 90-161. The instruction now incorporates broader risk categories, including financial, legal, reputational, cybersecurity, and human performance risks. This change also makes **Chapter 2** as the primary chapter for roles and responsibilities of DAF organizations and personnel. The new **Chapter 5**, *Risk Management Application and Integration,* was added to provide more guidance on identifying, assessing, and mitigating risks.

(ELLSWORTHAFB) The Ellsworth Air Force Base (EAFB) supplement was revised to align with DAFI 90-802. This supplement supersedes Air Force Instruction (AFI) 90-901, Ellsworth Supplement 1 dated 27 October 2020 and is designed to meet specific program requirements within the concept established by the basic Air Force (AF) directive.

Chapter 1

DEPARTMENT OF THE AIR FORCE RISK MANAGEMENT (DAF RM) OVERVIEW

1.1. Overview. The DAF has established an integrated framework incorporating RM into all operations, planning, training, and decision-making. The framework ensures forces remain agile and capable of taking decisive actions in response to evolving, multifaceted threats across all domains. DAF's adaptability is a key strength, enabling it to effectively manage risks, protect critical assets, inform strategic plans, and maintain the operational flexibility necessary to achieve mission objectives in highly contested environments. RM is a comprehensive discipline that goes beyond addressing safety and health risks. It also encompasses legal, reputational, financial, security, technological, acquisitions, emergency management, and governance risks. This comprehensive approach allows the DAF to proactively anticipate, mitigate, and excel in complex operational environments.

1.2. Risk Management Definition. A process that assists organizations and individuals in making informed risk decisions to reduce or offset risk, thereby, increasing operational effectiveness and the probability of mission success.

1.3. Risk Management Principles.

1.3.1. Accept risk when the benefits outweigh the costs. Decisions should be made clearly, and understanding risk may be necessary to achieve the mission or task. However, risk should only be accepted when the benefit significantly outweighs potential losses.

1.3.2. Accept no unnecessary risk. Only risks essential to mission accomplishment should be accepted. Avoid taking risks that are not necessary to the task or mission.

1.3.3. Make risk decisions at the right level. Risk decisions should be made by personnel with the appropriate authority and knowledge of the situation. The level of authority to accept risk increases with the potential hazard or risk level.

1.3.4. Integrate RM into all planning. RM is most effective when seamlessly integrated into all stages of the planning and decision-making process. This ensures that by considering risks early, robust mitigation strategies can be developed and implemented before operations commence.

1.3.5. Identify and address risk early. RM is not just about identifying potential hazards and risks, but also about creating comprehensive plans to address and mitigate them. The earlier risks are identified, the more effective the management process will be.

1.4. Risk Management Goals.

1.4.1. Enhance mission or objective effectiveness. The goal is to improve overall performance and operational readiness by identifying and managing risks that could impact the success of the mission, project, or objectives. Effective RM helps ensure necessary resources and capabilities are available when needed.

1.4.2. Protect people and preserve critical resources. A core goal of RM is to preserve key resources, such as personnel, equipment, and facilities. Preservation of resources maintains agile capability to support operations anywhere and at any time. Risks are managed to prevent unnecessary harm or damage, which could have an adverse effect on meeting mission goals.

1.4.3. Minimize financial and operational losses. The primary aim of RM is to reduce both direct and indirect costs related to risks, including avoiding costly disruptions, inefficiencies, or losses that can result from unforeseen events, mishaps, or failures, thereby enhancing financial and operational stability.

1.4.4. Ensure compliance with relevant standards and regulations. A key goal is to maintain compliance with applicable rules, regulations, and standards that govern operations, whether legal, industry-based, or organizational guidelines. Effective RM avoids penalties and supports smooth, lawful operations.

1.4.5. Create a productive and efficient environment. RM should foster an environment that supports productivity and efficiency by identifying and mitigating potential challenges or obstacles. RM promotes smoother workflows and operational success by identifying and mitigating risks before they become problems.

1.4.6. Promote continuous improvement and adaptability. The goal is to establish a process of continuous improvement by regularly assessing risks, evaluating outcomes, and implementing lessons learned to drive ongoing improvement. This proactive approach helps refine processes and enhance resilience, enabling more effective responses to changing conditions.

1.4.7. Empower decision makers to make informed risk decisions. RM will provide leaders and decision makers with the tools and information necessary to assess risks and make informed choices appropriate to the operation or mission. RM helps balance risks with potential benefits, enabling more informed strategic decisions and more effective resource allocation.

1.5. Risk Management Foundations.

1.5.1. The foundation of RM within the DAF is anchored in key principles that decisively guide the identification, assessment, and mitigation of risks across all operational areas. RM is not merely a procedural requirement but a vital component of the DAF's culture and decision-making processes. By embedding these fundamental principles into our operations, RM becomes a vital tool for effectively managing risks, protecting critical assets, shaping strategic planning, and ensuring the operational flexibility required to achieve mission objectives in complex and competitive environments.

1.5.2. The fundamental principles include:

1.5.2.1. Proactive risk identification. The cornerstone of effective RM is the early and continuous identification of potential hazards. This requires a vigilant approach to anticipating risks before they become imminent threats, enabling the development and implementation of timely and effective mitigation strategies.

1.5.2.2. Informed decision-making. RM provides a structured framework that supports informed data-driven decision-making at all levels. RM involves integrating risk considerations into the planning and execution of missions and activities, ensuring that decisions are based on a clear understanding of potential risks and their impact on mission objectives.

1.5.2.3. Leadership commitment. Successful RM is driven by the commitment of leadership at every level. Commanders and supervisors must not only endorse RM principles but also actively demonstrate their importance through consistent application and reinforcement. This commitment fosters a culture where RM is viewed as essential to mission success.

1.5.2.4. Adaptability and flexibility. The dynamic nature of modern operational environments demands that RM be adaptable and flexible. RM processes must be able to respond to changing conditions and emerging threats, allowing for rapid adjustments to risk controls and strategies.

1.5.2.5. Integration into daily operations. RM is most effective when seamlessly integrated into daily operations rather than being treated as a separate or additional task. This integration ensures RM principles are applied consistently across all activities, from routine tasks to high-stakes missions.

1.5.2.6. Continuous monitoring and improvement. RM is not a one-time process but a continuous cycle of evaluation and improvement. Monitoring risk controls and outcomes is essential to identify any gaps or vulnerabilities, allowing for adjustments that enhance overall RM effectiveness. This continuous improvement approach helps the DAF maintain readiness and resilience in the face of evolving challenges.

1.6. Risk Management Does Not. RM is a critical part of ensuring mission success, but RM does not:

1.6.1. Eliminate all risk. RM aims to reduce and mitigate risks to an acceptable level. Still, it does not create a risk-free environment or zero-defect mindset but seeks to manage and mitigate risks to acceptable levels. Some risk is inherent in all activities, especially in military and operational contexts, where risk must be managed but cannot be entirely avoided.

1.6.2. Absolve the obligation to comply with legal and regulatory requirements. RM is crucial for ensuring compliance, but does not replace or negate compliance responsibilities. RM cannot excuse or justify violations of statutory, federal regulatory, state, local or Department of Defense (DoD) guidance requirements, and it does not override DAF standards and criteria. DAF lacks the authority to grant exemptions or waivers for risk-related statutory and regulatory requirements. Any requests for waivers, variances or changes must undergo proper vetting and receive approval from the appropriate agencies. Therefore, RM cannot be used to justify or sanction any law violations.

1.6.3. Replace the need for good leadership or judgment. While providing a framework for identifying and addressing risks, RM is separate from the crucial role of sound judgment, experience, and leadership. Leaders remain responsible for making informed decisions, even when risks have been assessed and mitigated.

1.6.4. Guarantee success. While RM aims to enhance mission or operational success by minimizing potential hazards, it does not guarantee success. The reality is that there will always be unpredictable factors, and not all risks can be fully anticipated or controlled.

1.6.5. Delay necessary actions. RM should not be used to delay important decisions or actions. Identifying and mitigating risks are intended to support decision-making, not slow down or hinder the accomplishment of objectives or missions. Sometimes, quick decisions need to be made with limited information.

1.6.6. Assign risk decisions to inappropriate levels. RM risk decisions must be made at the appropriate level of authority. It does not allow personnel without the responsibility or proper authority to accept risks.

1.6.7. Rely solely on documentation. RM is more than just creating risk assessments or checklists. It requires active engagement in the process and the implementation of controls and mitigations. Simply documenting hazards and risks requires action to fulfill effective RM's intent.

1.6.8. Remove individual responsibility. While RM is a structured process, it does not remove the individual responsibility of employees, service members, and leaders to remain vigilant, act responsibly, and minimize their exposure to the myriad of risk factors encountered.

1.7. Acquisition and Other Applications.

1.7.1. Acquisition. Although interrelated, this publication does not address specific guidelines, policies, and procedures for Acquisition and Sustainment Life Cycle Management, Antiterrorism, Base Defense RM process, or Installation Emergency Management RM. DAF RM concerns related to Integrated Life Cycle Management guidelines, policies, and procedures for developing, reviewing, approving, or managing systems, subsystems, end-items, and services are addressed in DAFI 63-101/20-101, *Integrated Life Cycle Management,* and DAFI 31-101, *Base Defense Operations.*

1.7.2. Other Applications.

1.7.2.1. DAF RM concerns related to antiterrorism reside in Department of Defense Instruction (DoDI) O-2000.16V1_DAFI 31-145-O, *Antiterrorism (AT) Program Implementation,* and DAFI 10-2501, *Emergency Management Program*. Base Defense RM process is addressed in DAFI 31-101V1, *Base Defense Planning.*

1.7.2.2. This instruction does not address the Annual Planning and Programming Guidance risk assessment, the Air Force Requirements Oversight Council, and similar strategic-level applications developed by the Director, Air Force Studies and Analysis (SAF/SA). SAF/SA collaborates with process stakeholders to link the DAF's related Risk Criteria to the Chairman of the Joint Chiefs of Staff Integrated Risk Matrix.

1.7.2.3. Per DoDI 6055.01, *DoD Safety and Occupational Health (SOH) Program,* this instruction excludes fire prevention and protection covered under DoDI 6055.06, *DoD Fire and Emergency Services (F&ES) Program,* and AFI 32-2001, *Fire and Emergency Services (F&ES) Program.* Specific questions on the above topic areas should be directed to the appropriate subject matter experts and agencies.

1.7.2.4. DAF RM Concerns Related to Cyber Resiliency Information Technology Systems. A separate process exists for RM of information technology systems. It is governed by AFI 17-101, *Risk Management Framework (RMF) for Air Force Information Technology,* and AFMAN 14-403, *Sensitive Compartmented Information Security and Intelligence, Surveillance, and Reconnaissance Systems Cybersecurity and Governance.*

1.7.2.5. DAF RM concerns related to Mission Assurance, as defined in DoDD 3020.40, *Mission Assurance (MA),* reside in AFPD 10-24, *Mission Assurance.*

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Roles and Responsibilities. This chapter outlines the process management responsibilities of specific functionaries. These responsibilities are reinforcements or additions to those defined in the RM section of AFPD 90-8, *Environment, Safety & Occupational Health Management and Risk Management.*

2.2. Assistant Secretary of the Air Force for Installations, Environment, and Energy (SAF/IE) will:

2.2.1. IAW Headquarters Air Force Mission Directive (HAF MD) 1-18, *Assistant Secretary of the Air Force (Installations, Environment, and Energy),* has authority over the DAF RM process as outlined in DoDI 6055.01. This responsibility may be re-delegated IAW HAF MD 1-18, as necessary, to meet the intent of DoDI 6055.01.

2.2.2. Determine how the RM process and associated elements outlined herein apply to the DAF functional areas within SAF/IE authority under HAF MD 1-18.

2.3. Department of the Air Force Chief of Safety (AF/SE) will:

2.3.1. Serve as the lead agent for the overall cross-functional integration and sustainment effort of DAF RM processes and procedures to the HAF staff and all subordinate MAJCOMs/FLDCOMs/DRUs/FOAs, units, and other applicable agencies.

2.3.2. Designate an overall DAF RM Program Manager within the AF Safety Center who will:

2.3.2.1. Be trained IAW **Chapter 4** of this instruction.

2.3.2.2. Incorporate advancements and innovations in RM into the DAF RM process, as warranted.

2.3.2.3. Collaborate with all subordinate RM Process Managers (MAJCOM/FLDCOM/ DRU/FOA, NAF) to develop and provide policy, plans, tools, techniques, and processes that support and ensure DAF RM integration and sustainment within all functional areas.

2.3.2.4. Chair the DAF RM Working Group as outlined in **paragraph 2.5**.

2.3.2.5. Develop and provide final guidance and oversight of all matters about the formulation, review, and execution of policies, plans, tools, and techniques relative to the DAF RM process necessary to support DAF-wide integration and sustainment of RM.

2.3.2.6. Provide oversight to ensure that DAF RM principles are appropriately integrated into all Air Education and Training Command (AETC), Air University (AU), and United States Air Force Academy (USAFA) training programs. This includes verifying alignment with DAF RM policies and strategic intent. The development, delivery, and maintenance of course content remain the responsibility of the respective education and training institutions and curriculum owners.

2.3.2.7. Oversee the alignment of RM course materials with current DAF RM policy and standards. This includes reviewing training content for consistency with doctrine and ensuring appropriate coordination with responsible curriculum developers. The creation, instruction, delivery, and integration of RM training materials are the responsibility of the designated education and training organization. **(T-1)**

2.3.2.8. Continually evaluate applicable DAF publications IAW DAFI 90-302, *The Inspection System*.

2.4. Other Headquarters Air Force (HAF) Agencies.

2.4.1. Deputy Chief of Staff for Manpower, Personnel, and Services (AF/A1) and Deputy Chief of Space Operations for Personnel (SF/S1) will provide guidance to integrate RM processes, principles, and techniques into training and educational programs, as appropriate.

2.4.2. Deputy Chief of Staff for Plans and Programs (AF/A8) will ensure the DAF strategic plan and program guidance incorporates RM principles, as appropriate.

2.4.3. All HAF agencies will apply RM principles to their functions, as appropriate.

2.5. Department of the Air Force RM Working Group will:

2.5.1. Assist in developing DAF RM policy, requirements, and overall strategy by identifying DAF, MAJCOM/FLDCOM/DRU/FOA/NAFNAF, and specific organizational RM requirements.

2.5.2. Facilitate the exchange of cross-tell and lessons-learned information between MAJCOMs/FLDCOMs and equivalent organizations.

2.5.3. Be chaired by the DAF RM Program Manager and be comprised of representatives from SAF/IE and each MAJCOM/FLDCOM/DRU/FOA/NAFs.

2.5.4. Meet at least annually (on-site, via telecom, or video teleconference, as appropriate). Additional meetings will be scheduled as required by the DAF RM Program Manager in coordination with DAF RM Working Group representatives. Working Group and supporting agency representatives will be unit-funded for any temporary requirements supporting these meetings.

2.6. MAJCOM/FLDCOM Commanders or equivalent will:

2.6.1. Act as the principal RM advocate within their respective commands and make critical decisions on allocating command resources to control, mitigate or accept risk while balancing mission requirements.

2.6.2. Appoint a MAJCOM/FLDCOM-level RM Process Manager as the command-wide advocate for RM. This individual will be the primary liaison with the DAF RM Program Manager, DAF RM Working Group, and subordinate RM Advisors or Instructors on all RM related matters.

2.6.3. Establish subordinate RM support and ensure subordinate wing/delta commanders or equivalents appoint RM Advisors/Instructors to address mission-related and off-duty RM processes and concerns at the wing/delta and unit levels.

2.6.4. Integrate RM principles, concepts, and techniques into command-level education and training programs, including squadron commander and supervisor courses, leadership development training, and mission-planning exercises. Tailor training to meet the specific risks and operational needs of the command.

2.6.5. Ensure and verify subordinate units integrate RM principles into local training programs, including operational readiness exercises, stand-downs, and mission planning activities. Commanders should ensure these programs address unique mission requirements and operational risks.

2.6.6. Promote RM accountability and oversight by establishing clear authority levels and thresholds for deliberate risk assessments within the command. These thresholds should guide the elevation of risk decisions based on the nature of the operation, activity or personnel involved. As risk levels increase, acceptance and associated Go/No-Go decisions must be elevated to the appropriate commander or supervisory level to ensure adequate oversight. Risk acceptance processes should be monitored to maintain transparency and support mission assurance.

2.6.7. Promote a strong focus on both on and off-duty RM by engaging with personnel to reinforce the importance of proactive risk identification and mitigation in all areas of their lives. Use real-world examples to illustrate RM successes and failures.

2.6.8. Ensure RM principles are incorporated into daily planning, decision-making, and operational activities at all levels of command, promoting a culture where RM is viewed as a vital component of mission success.

2.6.9. Ensure RM principles are fully integrated into all command-level exercises, from initial planning to execution and post-exercise evaluations. Collaborate with RM process managers to assess and mitigate exercise scenarios and objectives risks.

2.6.10. Ensure the MAJCOM/FLDCOM RM Process Manager contributes inputs to the DAF RM Working Group for RM related course development, policy updates, and integration efforts at higher levels. Commanders should also review and endorse key RM recommendations.

2.6.11. Monitor and periodically evaluate the application and effectiveness of RM policies, training, and practices across the command. Use data from risk assessments, feedback mechanisms, and lessons learned to drive improvements.

2.6.12. Allocate resources to support RM training, staff assistance visits, and the development of RM tools and techniques. Ensure that personnel at all levels have access to the necessary resources to implement RM effectively.

2.6.13. Foster a command-wide culture of proactive RM by recognizing innovative approaches, facilitating open communication about risks, and encouraging personnel to prioritize well-being and mission success.

2.6.14. Collect and review lessons learned from significant incidents, exercises, and operations and, when applicable, share these lessons with subordinate units and submit them to the DAF Lessons Learned Program.

2.7. MAJCOM/FLDCOM Risk Management Process Managers will:

2.7.1. Act as Command-level RM Subject Matter Experts (SMEs) and serve as the primary advisors on RM processes, principles, and techniques for all RM-related matters within their MAJCOM/FLDCOM. Provide authoritative guidance and solutions for complex risk challenges.

2.7.2. Ensure the effective integration of RM principles across all command functional areas, including mission-critical and ancillary activities, and promote alignment with DAF-wide RM policies while addressing unique command-specific risks.

2.7.3. Collaborate with MAJCOM/FLDCOM exercise planning teams to ensure RM principles are embedded into exercise design, execution, and evaluation. Identify and mitigate potential risks associated with training scenarios, operational planning, and resource use. Provide input on realistic risk scenarios to enhance the effectiveness of training.

2.7.4. Develop command-specific RM policies, guidance, supplements, and strategies tailored to align with DAF objectives. Coordination with the DAF RM Program Manager is required to ensure alignment with DAF-wide objectives. Upon request, review additional command guidance, instructions, policies, and procedures to ensure the incorporation of risk management principles and to reflect evolving RM standards, best practices, and lessons learned.

2.7.5. Collaborate with the DAF Lessons Learned Program and command-level lessons learned offices to capture, analyze, and distribute RM insights. Link these efforts to the broader organizational improvement processes and ensure findings are applied across the command.

2.7.6. Act as the primary liaison between the command and the DAF RM Program Manager to facilitate communication and share updates, challenges, and success stories through the DAF RM Working Group and other forums.

2.7.7. Coordinate with subject matter experts to develop and refine RM tools, templates, and resources that meet the operational needs of the command.

2.7.8. Ensure all subordinate units conform to DAF-wide RM processes and command-specific policies and conduct periodic reviews to identify compliance gaps and support corrective actions.

2.7.9. Review and process RM requirement waiver requests submitted by subordinate units. Provide recommendations to the appropriate MAJCOM/FLDCOM authority and ensure waivers comply with the conditions outlined in DAF RM guidance.

2.7.10. Promote a proactive RM culture throughout the command by recognizing innovative risk mitigation practices, facilitating open communication about risk, and supporting leadership in addressing RM related concerns.

2.7.11. Explore technology and emerging practices, and incorporate advanced RM tools and methodologies like data analytics and predictive modeling to improve risk assessments and mitigation efforts. Share technological advancements with subordinate units and advocate for their adoption.

2.7.12. Continuously evaluate the effectiveness of RM strategies and processes within the command and incorporate lessons learned, feedback, and changes in mission requirements into updated strategies and guidance.

2.7.13. Collaborate with educational institutions and training programs under command authority to integrate RM concepts into curricula and ensure RM training meets operational needs and prepares personnel for real-world risk scenarios.

2.8. AETC, AU and USAFA will:

2.8.1. Incorporate RM principles, processes, tools, and techniques into curricula across all levels of education and training programs, including accession training, professional military education (PME), continuation training, and technical training. RM education must progress from foundational awareness to advanced application tailored to specific mission and career field needs.

2.8.2. Training curriculum managers will coordinate with their assigned MAJCOM/FLDCOM RM Process Managers to ensure RM-related content aligns with DAF strategic objectives and operational requirements.

2.8.3. Customize RM content to address each educational program's specific missions, risks, and goals while ensuring alignment with overarching DAF RM guidance as outlined in AFPD 90-8 and this instruction.

2.8.4. Embed RM principles and practices into leadership development programs, ensuring future leaders can apply RM in strategic decision-making and operational execution. Utilize real-world examples and case studies to illustrate the crucial role of RM in achieving mission success.

2.8.5. Collaborate with the LeMay Center at Maxwell AFB to integrate RM concepts and principles into new and existing DAF doctrine, ensuring these concepts are operationally relevant and mission-supportive, providing a clear framework for RM application at all levels of command.

2.8.6. Explore the use of emerging technologies such as virtual reality (VR), artificial intelligence (AI), and simulation-based training to enhance RM education, providing realistic, interactive scenarios that reinforce practical RM applications and innovative RM training methods.

2.8.7. Integrate RM principles into training exercises and wargames to reinforce the importance of risk identification, mitigation, and acceptance in high-pressure, mission-focused environments, ensuring participants understand the role of RM in mission planning and execution.

2.8.8. Regularly assess the effectiveness of RM training materials and update to reflect evolving risks, lessons learned, and advancements in tools and methodologies to ensure training meets the needs of personnel and supports operational readiness.

2.8.9. Design RM training with a building-block approach to build progressively, starting with basic awareness for entry-level personnel and advancing to complex applications for senior leaders and specialists, emphasizing the importance of RM as a core competency at every stage of career progression.

2.8.10. Promote a proactive RM and innovative culture by encouraging students to think critically about RM applications and share ideas, feedback, and potential improvements to RM practices during training and educational programs.

2.8.11. Continuously evaluate the effectiveness of RM education and training programs through feedback mechanisms, assessments, and after-action reviews and use findings to refine curricula and ensure they meet the evolving demands of the DAF.

2.9. All Commanders/Directors and equivalents will:

2.9.1. Champion RM principles and culture, encourage integration of RM principles, processes, and techniques into all organizational activities, and actively foster a risk awareness culture to enhance mission readiness.

2.9.2. Complete comprehensive RM training, IAW **Chapter 4** of this instruction, and establish a system to track initial and annual refresher training to ensure all subordinate personnel, supervisors, RM Process Managers, and advisors/instructors are trained.

2.9.3. Standardize and implement RM processes and tools across similar operations, missions, and activities. Establish clear guidance for risk acceptance thresholds, ensuring that decisions align with organizational authority levels and command intent. If MAJCOM/FLDCOM guidance provides sufficient risk acceptance thresholds, subordinate commanders and directors may adopt that without creating separate threshold guidance. Any threshold guidance developed by subordinate commanders and directors must align with higher-level intent and not contradict established guidance. As risk levels increase, acceptance decisions must be elevated to ensure appropriate oversight and approval..

2.9.3.1. **(Added-ELLSWORTHAFB)** All commanders of flying units will ensure the use of an RM assessment worksheet (hardcopy or computer based) to identify and manage risks associated with their flying mission(s) using process guidance established in DAFPAM 90-803, *Risk Management (RM) Guidelines and Tools.* When the brief occurs the day (or days) before the mission, the RM worksheet(s) will be reviewed and updated prior to step. Threshold criteria will be established to identify the appropriate risk assessment authority beyond the Aircraft Commander/Flight Lead. In case of elevated risk assessment, the supervisory authority retains the right to adjust the planned profile or cancel the sortie or crew swap-out. RM should be updated for unforeseen circumstances (i.e. maintenance delays, crew duty day extension, etc.). Minimum requirements for the RM worksheets will be:

2.9.3.1.1. **(Added-ELLSWORTHAFB)** RM assessment worksheets must be filled out before briefing every flight.

2.9.3.1.2. **(Added-ELLSWORTHAFB)** RM worksheets must be quantitative (apply numerical values).

2.9.3.1.3. **(Added-ELLSWORTHAFB)** RM worksheets must capture applicable risks for mission, location, MDS, etc.

2.9.3.1.4. **(Added-ELLSWORTHAFB)** RM worksheets will be maintained for analysis and program improvements.

2.9.3.1.4.1. **(Added-ELLSWORTHAFB)** Units will perform periodic reviews to ensure emerging hazards are addressed, and risk acceptance thresholds meet mission and unit commander requirements (quarterly review recommended). These reviews should include Operations and Safety perspectives.

2.9.3.1.5. **(Added-ELLSWORTHAFB)** Units will keep RM worksheets on file for 1 month for look back purposes in event of a mishap or maintenance finding.

2.9.3.1.6. **(Added-ELLSWORTHAFB)** Unit FSOs will collect and input RM data into the RM Trending Data worksheet located on the Flight Safety SharePoint, using a random collection of at least thirty RM worksheets. 28th Bomb Wing Flight Safety will use the data to brief aircrew on trending RM issues at the quarterly flight safety briefing.

2.9.3.2. **(Added-ELLSWORTHAFB)** The Risk Acceptance Authority is the person responsible for the success or failure of the mission and potential consequences should mission failure occur. Many times, the decision as to who accepts the risk is dependent on the scope of the activity. For example, events that occur on-base and affect more than one unit, may be the Group or even the Wing Commander if more than one Group is affected. If an activity only affects a small group of personnel or equipment, then the decision level may be at the shop level.

2.9.4. Promote RM principles that address risks associated with on-duty, mission-critical activities and off-duty activities and behavior.

2.9.5. Conduct a thorough evaluation of RM practices following any mishap, mission failure, near-miss incident, or operational disruption that exceeds established risk thresholds. Identify lessons learned, incorporate improvements into future RM training, policies, and processes, and share findings with the DAF Lessons Learned Program and Joint Lessons Learned Information System (JLLIS) (**https://www.jllis.mil/**), when applicable. This evaluation does not replace or override investigations conducted by authorized bodies, e.g., safety, inspector general or law enforcement agencies.

2.9.6. Emphasize command and supervisory responsibility and ensure commanders and supervisors at all levels understand their critical roles in identifying, managing, and mitigating risks. Actively engage with personnel to address risks proactively.

2.9.7. Incorporate RM into leadership engagements, using commander's calls, stand-down days, stand-up days, training days, and other forums to highlight RM topics, including real-world examples, unit-specific risks, and success stories to reinforce RM principles.

2.9.8. Encourage open communication about risk, empowering personnel to report hazards, provide feedback, and suggest improvements to RM practices without fear of reprisal.

2.9.9. Ensure that RM efforts align with broader DAF and unit-level goals and integrate RM into operational planning, resource allocation, and decision-making processes to enhance mission success and efficiency.

2.9.10. Leverage risk assessment data and feedback mechanisms to improve RM processes and establish a system for tracking, analyzing, and sharing RM data to support informed decision-making and organizational learning.

2.9.11. Maintain up-to-date RM tools, forms (e.g., Joint Risk Assessment Tool (JRAT), DD Form 2977, *Deliberate Risk Assessment Worksheet*), and training materials, ensure accessibility to all personnel, and encourage their use for both on-duty and off-duty applications.

2.9.12. Promote collaboration and actively participate in cross-functional RM discussions with adjacent units and organizations to share RM insights, best practices, and lessons learned.

2.9.13. Incorporate RM into contingency planning, train leaders and teams to adapt risk controls as conditions change during operations, ensuring personnel are prepared to respond to evolving or unexpected risks.

2.9.14. Continuously monitor and assess the effectiveness of RM policies, processes, and controls at all levels and implement corrective actions to ensure the long-term sustainability of RM efforts.

2.10. Wing/Delta commanders or equivalents will:

2.10.1. Serve as the primary advocates for RM within their respective wings/deltas by making critical decisions regarding the allocation of assets to control, mitigate, or accept risks, balancing mission requirements with personnel well-being and operational effectiveness.

2.10.2. Designate the appropriate organization, office, or individual within the wing/delta to oversee RM implementation and ensure compliance with MAJCOM/FLDCOM-level policies. This focal point will serve as the central hub for all RM-related issues and liaise with higher-level RM Process Managers.

2.10.2.1. **(Added-ELLSWORTHAFB)** The Wing Safety Staff will serve to facilitate and monitor RM principles, processes, policies and techniques as required by Air Force Global Strike Command (AFGSC) and/or 28 BW level policy.

2.10.2.2. **(Added-ELLSWORTHAFB)** Wing RM Instructor/advisor(s) will be assigned from 28 BW/SE to facilitate the RM program. Subordinate Groups may designate additional RM instructor/advisors if deemed appropriate by the Wing Commander.

2.10.3. Appoint qualified wing/delta-level RM advisors or instructors to ensure RM principles, processes, tools, and techniques are effectively applied to address unique mission needs and off-duty activities. At a minimum, designate one primary RM advisor/instructor per wing/delta, with additional personnel appointed as necessary to support subordinate units.

2.10.4. Integrate RM principles into training, local mission planning, operational readiness exercises, and stand-down/stand-up days. Focus training efforts on both on and off-duty RM applications, using real-world and unit-specific examples to maximize relevance and impact.

2.10.5. Tailor RM refresher topics to local needs, incorporating lessons learned, emerging risks and success stories, and determine focus areas for RM refresher briefings and presentations based on specific concerns at the MAJCOM/FLDCOM, wing/delta, or unit levels.

2.10.6. Ensure deliberate RM is conducted before planning and executing operations, exercises, or activities, using standardized tools, such as the DD Form 2977 to document and evaluate risks comprehensively.

2.10.7. Advocate for RM integration into decision-making processes across all organizational levels and empower leaders and personnel within subordinate units to identify, assess, and mitigate risks effectively.

2.10.8. Regularly monitor and assess the effectiveness of RM policies, processes, and controls at the wing/delta level, address deficiencies, update practices, as necessary, and share findings with MAJCOM/FLDCOM to contribute to the continuous improvement of RM across the DAF.

2.10.9. Submit waiver requests for RM requirements that cannot be fulfilled due to resource constraints or other factors. Waivers must be submitted through the MAJCOM/FLDCOM RM process manager to the MAJCOM/FLDCOM Deputy Commander for approval. Waivers will not exceed 12 months and must be revalidated before MAJCOMs/FLDCOMs grant additional waivers.

2.10.10. Promote a proactive RM culture that encourages personnel, at all levels, to prioritize RM, identify potential hazards, and share innovative risk mitigation solutions by reinforcing the importance of RM through leadership engagement, formal recognitions, and integration into routine operations.

2.11. All DAF RM Advisors/Instructors will:

2.11.1. Be trained IAW **Chapter 4.**

2.11.2. Serve as subject matter expert on RM principles, processes, tools, and techniques and offer RM expertise and risk assessment support to leadership, personnel, and organizations within their functional areas.

2.11.3. Assist with formal risk assessments and utilize tools such as the DD Form 2977 to document and evaluate risks thoroughly, ensuring assessments are appropriately documented for leadership review and future reference.

2.11.4. Deliver the approved Risk Management Application and Integration (RM A&I) Field Course to enhance training effectiveness, incorporate mission-specific scenarios, lessons learned, and real-world applications.

2.11.5. Liaise with RM Process Managers and designated unit representatives to ensure RM is consistently integrated into unit-level planning, operations, and activities and support leadership in embedding RM into daily operations, mission planning, and after-action reviews.

2.11.6. Encourage and collect RM feedback from unit personnel to identify gaps, challenges, and successes, share findings with MAJCOM/FLDCOM RM Process Managers, and incorporate lessons learned into future training and processes.

2.11.7. Collaborate with lessons-learned offices and submit relevant lessons-learned to the DAF Lessons Learned Program and the JLLIS (**https://www.jllis.mil**) to capture, analyze, and disseminate RM insights and best practices.

2.11.8. Foster a culture of proactive RM, highlighting the importance of individual and team accountability in risk identification and mitigation, and encourage personnel to adopt proactive RM practices both on and off-duty.

2.11.9. Support personnel in understanding and applying RM principles during mission-critical and ancillary activities to help minimize disruptions and enhance unit readiness and resilience.

2.11.10. Document accurate records of RM briefings, training sessions, and assessments and maintain for at least 24 months ensuring materials are accessible for future audits, evaluations, or refresher training.

2.11.11. Coordinate and share RM practices, policies, and tools with subordinate and adjacent units to ensure consistency and collaboration across organizational boundaries. Actively engage in cross-unit RM discussions to improve collective RM effectiveness.

2.11.12. Monitor and address evolving risks, such as technological, environmental, or mission-specific hazards, and incorporate into training and assessments to reflect these changes, and ensure personnel remain equipped to manage new challenges.

2.11.13. Align RM training and activities with command priorities and strategic objectives, and emphasize the role of RM in achieving mission success, enhancing resource efficiency, and ensuring personnel safety.

2.12. DAF Career Field Managers will:

2.12.1. Integrate RM principles, processes, tools, and techniques into Career Field Education and Training Plans (CFETPs) for all Air Force Specialty Codes (AFSCs) and Space Force Specialty Codes (SFSCs), emphasizing mission-specific applications and career progression milestones.

2.12.2. Collaborate with AETC, AU, and other training organizations to incorporate RM concepts into technical training, PME, and continuation training curricula and ensure RM training evolves alongside mission requirements and technological advancements.

2.12.3. Develop and tailor RM training standards and evaluations, including RM related objectives and tasks, to progressively build RM proficiency from entry-level awareness to advanced application, aligning with each career field's unique responsibilities and risks.

2.12.4. Ensure supervisors, instructors, and training managers are adequately trained in RM principles, equipped to mentor and evaluate personnel on RM related competencies, and provide clear guidance for integrating RM into on-the-job training and evaluations.

2.12.5. Regularly review and update career field RM training plans and tools to ensure they remain relevant, effective and incorporate lessons learned, technological advancements, and feedback from operational units into updates.

2.12.6. Foster RM expertise in leadership development and embed RM principles into leadership training for career progression, ensuring that leaders understand their role in fostering a culture of RM and accountability within their units.

2.12.7. Monitor and evaluate the effectiveness of RM training and its impact on operations and mission success.

2.12.8. Encourage collaboration across career fields and promote the sharing of RM best practices, tools, and lessons learned between career fields to enhance cross-functional understanding and improve RM practices DAF wide.

2.13. System Safety Managers will:

2.13.1. Complete RM training IAW **Chapter 4** and receive specialized training tailored for acquisition, testing, and system safety processes, as mandated by the Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics (SAF/AQ), Assistant Secretary of the Air Force for Space Acquisition and Integration (SAF/SQ), or MAJCOM/FLDCOM-specific guidance, as applicable.

2.13.2. Apply overarching RM principles and practices to acquisition and system safety RM in the development, sustainment and disposal of weapon systems as part of acquisition systems engineering and system safety processes outlined by SAF/AQ and Air Force Materiel Command (AFMC) IAW Headquarters Air Force Mission Directive (HAF MD) 1-10, *Assistant Secretary of the Air Force (Acquisition),* SAF/SQ and Space System Command (SSC) IAW HAF MD 1-17, *Assistant Secretary of the Air Force (Space Acquisition and Integration),* DAFI 63-101/20-101 and Military Standard (MIL-STD)-882, *Department of Defense Standard Practice: System Safety.*

2.13.3. Support the program manager's responsibilities to integrate RM principles systematically into acquisition lifecycle stages and ensure RM practices directly support cost, schedule, and performance objectives while prioritizing safety and operational effectiveness.

2.13.4. Conduct comprehensive hazard analyses to identify risks during the design and development phases using tools such as Preliminary Hazard Analysis (PHA), System Safety Analysis (SSA), and Failure Mode and Effects Analysis (FMEA) to document risks and recommend effective mitigations.

2.13.5. Provide detailed system safety assessments to stakeholders, including information on mitigation strategies and any residual risks after controls are implemented and ensure residual risk acceptance is coordinated at the appropriate levels of command.

2.13.6. Support the program manager, chief engineer and product support manager's life cycle risk management responsibilities by actively collaborating with systems engineers, logisticians, operators, and maintainers to incorporate RM into multidisciplinary decision-making processes, ensuring system safety considerations are balanced with operational and mission requirements. Significant areas of life cycle risk management collaboration include:

2.13.6.1. Advising the program manager and other stakeholders on how to appropriately incorporate RM requirements, including provisions for identifying, managing, and documenting risks throughout the acquisition lifecycle, into contracts with defense contractors and suppliers.

2.13.6.2. Continuously monitoring the implementation and effectiveness of risk controls during system testing and operational deployment, validating controls remain effective under real-world conditions, and advising on adjustments, as necessary.

2.13.6.3. Developing and maintaining comprehensive documentation of system hazards, risk mitigation efforts, and lessons learned and ensuring information is transferred effectively to program decision-makers and other relevant personnel, including those responsible for operation, maintenance, and training.

2.13.6.4. Advise on the integration of emerging technologies and methodologies to enhance RM practices within the acquisition process, including innovative tools like digital twins, artificial intelligence, and advanced simulation for more effective risk analysis and mitigation.

2.13.7. Ensure RM activities support broader DAF strategic goals by enhancing acquired systems' reliability and sustainability and collaborate with program managers and leadership to align RM efforts with mission objectives.

2.13.8. Proactively address cybersecurity and information assurance risks as part of the RM process, ensure compliance with AFI 17-101and AFMAN 14-403, and integrate RM into efforts to protect systems from cyber threats throughout their lifecycle.

2.13.9. Actively participate and contribute to the DAF Lessons Learned Program and the Joint Lessons Learned Information System to ensure insights from acquisition and systems safety RM activities are shared across the DAF to inform future projects and initiatives.

2.14. Supervisors will:

2.14.1. Exemplify RM principles and practices by incorporating RM into daily tasks and decision-making processes.

2.14.2. Integrate RM as a key element in operational planning, training, and execution phases and ensure RM principles are consistently applied to identify hazards, evaluate risks, and implement mitigation measures.

2.14.2.1. **(Added-ELLSWORTHAFB)** Project officers (i.e. supervisor, project manager, event coordinator, etc….) will complete formal risk assessments using the DAF Form 4437, *Deliberate Risk Assessment Worksheet,* during exercises, special events hosted on base, when a facility is used for other than its originally intended purpose, and when there is a change to or lack of an appropriate work process. This includes changes to operations outside of established guidance

2.14.2.2. **(Added-ELLSWORTHAFB)** Submit all completed DAF Form 4437 to 28 BW/SE Staff for review/consultation prior to signature by the Risk Acceptance Authority. Please forward signed copies to 28 BW/SEG for filing.

2.14.3. Develop and mentor personnel to enhance their understanding and application of RM principles by providing ongoing guidance, feedback, and training opportunities tailored to the unique needs and risks of the mission and environment.

2.14.4. Develop and standardize RM processes within the unit and ensure personnel have access to the appropriate tools, forms, and resources, such as the DD Form 2977, to document and evaluate risks effectively.

2.14.5. Continuously monitor and conduct periodic reviews of implemented risk controls to ensure they remain effective and relevant, using feedback from personnel and lessons learned from incidents to make adjustments.

2.14.6. Create an environment where personnel feel encouraged to report hazards and risks without fear of reprisal by fostering open communication, actively listening to their concerns, and promptly addressing reported issues.

2.14.7. Acknowledge personnel who effectively apply RM principles to reinforce the importance of RM in achieving mission success.

2.14.8. Align RM efforts with unit-specific objectives and broader DAF strategic priorities, highlighting the role of RM in enhancing operational effectiveness, resource management, and personnel safety.

2.14.9. Incorporate contingency planning into RM processes, ensuring that personnel are trained and equipped to promptly and effectively respond to unexpected risks or changing conditions.

2.14.10. Encourage collaboration with other supervisors, units, or organizations to share RM practices, lessons learned, and tools to promote a cohesive approach to managing risks that may impact joint operations or shared resources.

2.14.11. Incorporate RM principles into leadership development and training programs for subordinates, ensuring emerging leaders understand RM responsibility and instill an RM and accountability culture.

2.14.12. Maintain accurate records of risk assessments, decisions, and outcomes and use documentation for training, after-action reviews, and compliance with DAF RM policy.

2.14.13. Recognize and mitigate risks related to personnel well-being, such as stress, fatigue, and mental health concerns and promote available resources and support systems to address these issues proactively.

2.14.14. Use stand-down and stand-up days, commander's calls, and other events to discuss RM principles, share real-world case studies, and reinforce the importance of RM in all aspects of operations.

2.14.15. Support continuous improvement by participating in evaluations and inspections to identify RM process gaps or areas for improvement and provide actionable recommendations to senior leaders for enhancing RM practices at all levels.

2.15. All DAF Personnel will:

2.15.1. Complete RM fundamentals and annual refresher training IAW **Chapter 4** to maintain knowledge of RM principles, tools, and techniques and stay updated on policies, tools, and methodologies relevant to evolving mission needs.

2.15.2. Consistently use RM processes to assess and mitigate risks in all aspects of duty, including planning, decision-making, and execution of tasks and extend these principles to personal off-duty activities to promote comprehensive risk awareness.

2.15.3. Document deliberate risk assessments and risk acceptance decisions using standardized tools, such as the DD Form 2977.

2.15.4. Provide constructive feedback and recommendations to enhance RM practices, actively participate in after-action reviews, and contribute to the documentation of lessons learned for submission to the DAF Lessons Learned Program or JLLIS.

2.15.5. Promote peer collaboration and encourage team-based approaches to RM, leveraging peer insights to identify risks, share lessons learned, and implement effective mitigation strategies by proactively applying RM within the Wingman or Guardian culture of care and accountability.

2.15.6. Integrate RM principles into operational and personal decision-making by weighing risks against benefits and considering short and long-term implications.

2.15.7. Be vigilant and flexible in recognizing new or evolving risks, especially in dynamic operational environments and adapt to changing environments by proactively adjusting mitigation strategies to address changing circumstances while maintaining mission focus.

2.15.8. Champion a culture of RM excellence, prioritizing risk to force and mission, by demonstrating a commitment to RM practices and advocating for continuous risk awareness and improvement within teams.

2.15.9. Share RM success stories and best practices with external units or allied organizations to strengthen the RM culture and collaboration within the DAF community.

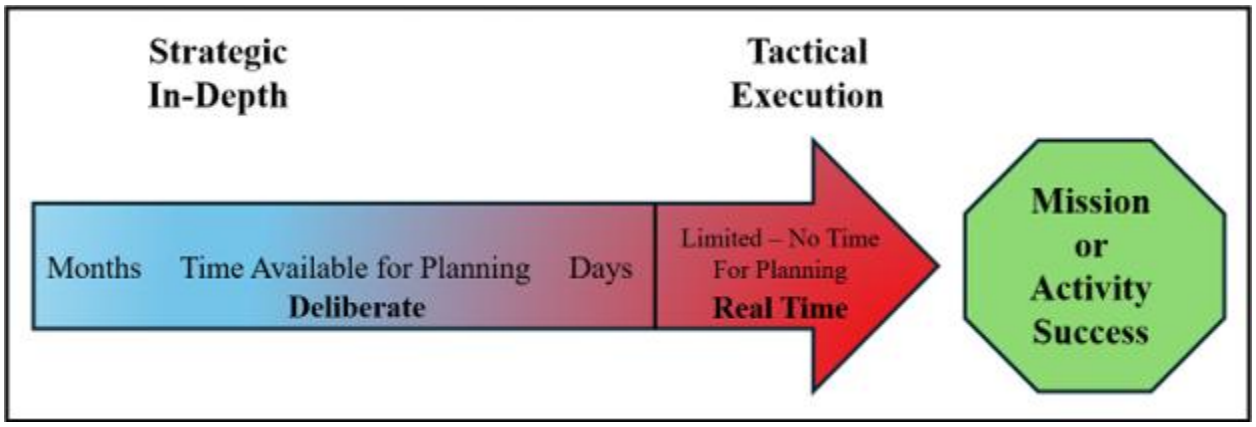
2.15.10. Integrate and align personal and organizational RM efforts with DAF's strategic priorities, ensuring RM contributes to mission success, resource efficiency, and the well-being of personnel.

Chapter 3

RISK MANAGEMENT LEVELS AND PROCESSES

3.1. Risk Management Levels. The principles, goals, and fundamental concepts of RM emphasize its universal application within any community or situation, both on and off duty. There are two primary levels of RM: Deliberate and Real-Time. These levels determine the effort and scope that will be taken when evaluating risks. **Figure 3.1** illustrates the fundamental relationship between these levels and how they connect across the strategic (long-term) and tactical (short-term) spectrums. The controls, resources, and issues depicted below the RM levels represent examples of resources and impacts that may be relevant throughout the planning and execution timelines. The diagram shows that Deliberate and Real-Time Risk Management are interconnected in decision-making. They are only separated when the planning phase shifts to the execution phase of a mission or activity. An effective RM process involves careful planning and effective Real-Time Risk Management (RTRM). This comprehensive approach ensures thorough risk mitigation and enhances the likelihood of success for the mission or activity.

Figure 3.1. Relationship of Risk Management Levels.



3.1.1. Deliberate Risk Management. Deliberate risk management involves planning before a mission or activity and typically follows the formal 5-step RM process described in **paragraph 3.2**.

3.1.1.1. This process may include a thorough planning phase that consists of comprehensive hazard identification, detailed data research, diagrams, analysis tools, formal testing, and long-term tracking of risks associated with an operation, activity, or system. It also encompasses routine operations and activity planning that utilize the same 5-step RM process but require less time and resources. Typically associated with strategic-level planning, in-depth RM planning is reserved for complex operations and systems, high-priority and high-visibility situations, or circumstances where hazards are poorly understood.

3.1.1.2. In-depth RM planning is conducted well before the target system, mission, event, or activity, particularly for more complex and risky efforts. This includes large troop or unit movements, airshow planning, system development, tactics and training curriculum development, planned vacations, organized camping and hiking activities, and scheduled home repairs.

3.1.1.3. As the situation, operation, or activity becomes less complex, more familiar, or closer to execution, Deliberate RM planning is simplified, shifting the focus to identifying and mitigating near-term hazards. The experience, expertise, and knowledge of qualified personnel play a crucial role in identifying known hazards and developing strategies to effectively mitigate risks for the specific mission, activity, or task, both on and off-duty. Although RM is part of the pre-planning process, it should also be considered during the execution phase of any activity.

3.1.2. Real-Time Risk Management (RTRM). This level of RM is focused on decisions made in Real-Time, primarily during the execution or tactical phases of training, operations, emergency responses, or off-duty activities. During RTRM, plans generated with Deliberate RM are implemented and monitored closely for adjustments and changes in the environment. There are times when Deliberate RM cannot be conducted due to time constraints. In these situations, little to no time is often available for formal or detailed RM planning. Instead, decisions are typically made through informal mental assessments conducted on the fly. Examples of real-time RM scenarios include short-notice assignments, activities driven by weather or natural phenomena, emergency responses, and spontaneous off-duty activities. Basic RM processes are applied to identify and mitigate hazards in new or rapidly changing situations. Due to the limited time available, detailed RM planning (as discussed in **paragraph 3.1.1**) is often impractical. In these real-time contexts, individuals must apply RM concepts quickly and effectively to manage risks.

3.2. The 5-Step Risk Management Process. RM is a continuous and systematic process designed to inform decision-making. It consists of five primary steps, as illustrated in **Figure 3.2**. These steps outline the formal RM process, primarily related to deliberate RM planning, and serve as the foundation for considerations in real-time RM. Below is a brief description of the five steps in the RM process.

Figure 3.2. 5-Step Risk Management Process.

3.2.1. {Step 1} Identify Hazards. The first step in the RM process involves using appropriate hazard identification techniques to properly identify hazards associated with the operation or activity properly. Hazards are any actual or potential condition, situation, or event that can cause harm, injury, damage, or mission failure. They can affect personnel, equipment, infrastructure, operational capabilities, or the environment. Hazards are identified by proactively assessing various factors that could disrupt or negatively impact mission objectives. This proactive approach helps in preventing potential risks and ensures mission success. These hazards are not limited to safety risks but encompass many areas, including operational, financial, environmental, legal, and cybersecurity concerns. Proper identification of hazards allows for the development of controls to mitigate associated risks and ensure mission success. Key aspects of this step include:

3.2.1.1. Mission and Task Analysis. Review current and planned operations and tasks associated with the mission or activity.

3.2.1.2. List Hazards. Identify and list hazards or factors that may lead to dangers and risks associated with the operation or activity. Such hazards include:

3.2.1.2.1. Mission Hazards. Mission hazards can directly disrupt or prevent the completion of the mission, involving factors that interfere with achieving operational goals or that could lead to mission failure. Examples include faulty mission planning, inadequate resources, environmental or weather conditions, intelligence gaps, or inaccurate data.

3.2.1.2.2. Operational Hazards. Operational hazards refer to risks associated with day-to-day operations that may impact efficiency or the ability to execute tasks effectively. These risks can lead to delays, resource waste, or inefficiency, ultimately impacting mission success. Examples include malfunctioning equipment or systems, supply chain disruptions, poor maintenance practices, and communication breakdowns.

3.2.1.2.3. Financial Hazards. Financial risks include any hazards that may result in economic losses or inefficiencies. These can affect budgeting, resource allocation, or mission sustainment. Examples include budget overruns, fraud, waste or abuse of resources, misallocating funds, or improper procurement procedures.

3.2.1.2.4. Environmental Hazards. Environmental hazards relate to the mission's natural and built environments. These risks can impact personnel and equipment and pose long-term challenges to sustainability and compliance. Examples include extreme weather conditions, pollution or hazardous materials, wildlife, or geographic challenges.

3.2.1.2.5. Legal and Regulatory Hazards. This category includes risks associated with violating laws, policies, or regulations. Failing to adhere to these can lead to legal challenges, penalties, or halted operations. Examples include violating environmental rules, breaching airspace restrictions, and failing to comply with contracting and procurement laws.

3.2.1.2.6. Cyber and Information Security Hazards. Cybersecurity and information assurance risks are critical as operations rely on technology and information systems. Examples include vulnerabilities in communication networks, unsecured systems, and unauthorized access to classified data.

3.2.1.2.7. Political and Geopolitical Hazards. This category encompasses risks associated with political situations, both domestically and internationally. These hazards can affect mission planning, partnerships, and the broader strategic environment. Examples include diplomatic tensions that restrict access to airspace or bases, political instability in a host country, shifting alliances, or changes in defense agreements.

3.2.1.2.8. Safety Hazards. These involve risks to personnel or equipment. Examples include slippery surfaces in work areas, unsafe working conditions in aircraft maintenance, fatigue among personnel, and fire hazards in facilities or on the flight line.

3.2.1.2.9. Reputational Hazards. Damage to the DAF's reputation can also be a significant hazard. Poor public relations or handling of sensitive events can undermine trust and support domestically and internationally. Examples include negative media coverage of operations or mishaps, mishandling public statements or information during a crisis, and failures that result in a loss of public trust or confidence in leadership.

3.2.1.2.10. Human Performance Hazards. Human performance is essential to mission success, and hazards related to human error, behavior, and health are critical to address. Examples include fatigue or burnout among personnel, inadequate training or competency in crucial roles, stress, moral issues or mental health concerns, and leadership or decision-making errors.

3.2.1.3. List Causes. List the causes associated with each identified hazard and try to identify the root cause(s) against which to apply RM strategies.

3.2.2. **{** Step 2**}** Assess the Hazards. This assessment uses quantitative and qualitative measures to determine the probability and severity of adverse effects resulting from exposure to hazards and risks that could impact mission or activity success. This process can be formal or intuitive. Key aspects of this step include:

3.2.2.1. Assess Hazard Exposure. Evaluate the time, proximity, volume, or frequency of exposure to identify the level of risk associated with hazards.

3.2.2.2. Assess Hazard Severity. Determine the severity of the hazard by considering its potential impact on personnel, equipment, mission, or activity.

3.2.2.3. Assess Probability. The severity assessed in the previous step influences the probability that the hazard will result in an adverse event. Probability can be determined through estimates or actual data, if available.

3.2.2.4. Assess Risk Levels. Based on severity and probability, identify the level of risk associated with each hazard. Risk levels can range from extremely high, corresponding to frequent exposure with catastrophic consequences, to low, indicating unlikely exposure with minimal impact.

3.2.2.5. Complete Risk Assessment. Combine the severity and probability estimates to assess the risk of each hazard. By combining the probability of occurrence with severity, a matrix is formed that visually represents risk levels. **Figure 3.3** illustrates the Sample Risk Assessment Matrix, which incorporates numeric values and color coding to ensure readability in both color and grayscale formats. For a comprehensive description of the Risk Assessment Matrix, see the Department of the Air Force Pamphlet (DAFPAM) 90-803, *Risk Management (RM) Guidelines and Tools.*

Figure 3.3. Sample Risk Assessment Matrix.

Risk Assessment Matrix			**PROBABILITY** *(Expected frequency)*				
			A Frequent: Continuous, regular, or inevitable occurrences	**B** Likely: Several or numerous occurrences	**C** Occasional: Sporadic or intermittent occurrences	**D** Seldom: Infrequent occurrences	**E** Rarely: Possible occurrences but improbable
SEVERITY *(Expected consequence)*	**Catastrophic:** Mission failure, unit readiness eliminated; death, unacceptable loss or damage	I	EH	EH	H	H	M
	Critical: Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage	II	EH	H	H	M	L
	Moderate: Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage	III	H	M	M	L	L
	Negligible: Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage	IV	M	L	L	L	L
			Risk Assessment Levels				
			EH = Extremely High		**H = High**	**M = Medium**	**L = Low**

3.2.3. { Step 3} Develop Controls and Make Decisions. Step three focuses on creating and selecting strategies and controls that reduce or eliminate risk. Effective mitigation measures aim to decrease one of the three components of risk: probability, severity, or exposure. Risk mitigation decisions must be made at the appropriate level relative to the identified risk. The greater the risk, the higher the decision-making authority required to ensure that a thorough analysis of overall costs and benefits has been conducted. It is important to note that there is no one-size-fits-all approach or specific standard for establishing RM decision authority levels across the DAF. However, leadership and decision-makers must ensure that the levels of decision authority align with acceptable levels of risk, taking into account mission requirements and the experience levels of personnel conducting operations and activities under their responsibility. Decision levels can vary within a command based on differing operations and activities if training requirements, mission sets, or activities are divergent enough to warrant separate standards, i.e., AETC, Air Force Special Operations Command (AFSOC),

etc. Ultimately, decision-makers must select the most mission-supportive risk controls that align with RM principles and provide the best solution for identified hazards. Risk decisions must never be delegated to a lower level simply for convenience or when the situation warrants senior-level involvement. Exceptions may be made in time-critical situations where delays could jeopardize lives, resources, or equipment. Key aspects of this step include:

3.2.3.1. Identify Control Options. Begin by identifying risk control options for the highest-risk hazards assessed in Step 2 (refer to **paragraph 3.2.2**.). For each hazard, provide one or more control measures that can effectively eliminate, avoid, or reduce the risk to an acceptable level.

3.2.3.2. Determine Control Effects. Once control measures are identified, assess how each control impacts the risks associated with the hazards. Reassess the hazard while considering the effects of the controls on its severity and probability. This refined risk assessment helps determine the residual risk after implementing the selected controls. At this stage, evaluate the costs associated with the controls, considering personnel, equipment, money and time, and check for potential interactions between controls to ensure they complement each other.

3.2.3.3. Prioritize Risk Controls. For each hazard, rank the identified risk controls based on their effectiveness in reducing risk to an acceptable level. The most effective controls will align with mission objectives and optimize the available resources, such as human resources, materials, equipment, funding, and time.

3.2.3.4. Select Risk Controls. Choose the risk controls for each identified hazard that will bring the risk down to an acceptable level. Like the prioritization process, the selected controls should align with the mission or activity objectives and optimize available resources (as mentioned in **paragraph 3.2.3.3**.).

3.2.3.5. Make Risk Control Decision. Analyze the overall risk of the operation or activity with the proposed controls in place. Determine if the benefits of proceeding with the operation outweigh the level of risk it presents. Consider the cumulative risk of all identified hazards and the potential long-term consequences of the decision. If the costs associated with the risks outweigh the benefits, revisit the control options to explore the possibility of new or modified controls. If no further controls can be identified, inform the next level in the chain of command that, based on the evaluation, the risks of the mission exceed the potential benefits, and modifications are necessary. When notified of such a situation, the next level in the chain of command should either assist in implementing required controls, modify or cancel the mission, or accept the identified risks based on a higher-level risk-benefit analysis. Remember that as circumstances change for a given mission or activity, the benefit-to-risk comparison should be reevaluated to ensure that earlier Go/No-Go decisions remain valid.

3.2.4. {Step 4} Implement Controls. Once control measures have been selected, it is essential to develop an implementation strategy. This strategy should identify who is responsible, what actions need to be taken, when and where these actions will occur, and the associated costs. For mission-related controls, it is crucial to emphasize accountability across all levels of leadership and personnel involved in the action, ensuring a clear understanding of the risks and responsibilities of both commanders and subordinates. Accountability for risk acceptance must always be maintained, regardless of the circumstances. Key aspects of this step include:

3.2.4.1. Make Implementation Clear. Provide a clear roadmap and vision for the desired end state, along with a description of how successful implementation will look. The control measure must be deployed in a manner that ensures the intended audience understands it comprehensively.

3.2.4.2. Establish Accountability. Accountability is a critical aspect of RM. The person accountable for the control measures decides to approve them; thus, the right individual at the appropriate level must make this decision. It should also be clear who is responsible at the unit or execution level for implementing risk controls. All individuals involved in the RM process must know their responsibilities, who is accountable at each stage of an operation or activity, and when decisions will be escalated to higher authority.

3.2.4.3. Provide Support. For the control measures to be successful, command and leadership must fully support them. The personnel and resources required for implementation must be provided. Sustainability should be considered from the outset, and a feedback mechanism should be established to monitor whether the control measure achieves its intended purpose.

3.2.5. {Step 5} Supervise and Evaluate. The RM process continues throughout the entire life cycle of the system, mission, or activity. Leaders and supervisors at every level must fulfill their respective roles to ensure that controls are maintained over time. Once the controls are established, the process must be periodically reevaluated to confirm that the controls remain effective and supportive of the mission. Key aspects of this step include:

3.2.5.1. Supervise. Monitor the operation or activity to ensure that:

3.2.5.1.1. The controls are effective and remain in place.

3.2.5.1.2. Changes that require further RM are identified.

3.2.5.1.3. Action is taken when necessary to correct ineffective risk controls and reinitiate the RM process in response to new hazards.

3.2.5.1.4. Risks and controls are reevaluated whenever personnel, equipment, mission, or activities change or when new actions are anticipated in an environment not addressed in the initial RM analysis.

3.2.5.1.5. During leadership transitions, selected RM controls should remain consistent. Ensuring that outgoing leaders share their knowledge, experiences, and lessons with incoming leaders facilitates a smooth transition of risk acceptance and minimizes operational volatility during these changes.

3.2.5.2. Evaluate. The review and evaluation of the RM process must be systematic. After resources are allocated to control risks, a cost-benefit analysis will be conducted to assess whether the balance between risk and cost is appropriate. Significant changes in the system will be recognized, and necessary RM controls will be applied to manage those risks effectively. A thorough review and evaluation will also help determine whether actual costs align with expectations and how the controls have impacted mission performance, positively or negatively. Additional considerations include:

3.2.5.2.1. It is unlikely that every risk analysis will be perfect. When risk analyses contain errors of omission or commission, those errors must be identified and corrected.

3.2.5.2.2. Measurements are essential to ensure accurate evaluations of how effectively controls eliminate hazards or reduce risks. Tools such as after-action reports, surveys, and in-progress reviews are excellent for measurement. Measurements must quantitatively or qualitatively identify changes in risk, mission outcomes, or capabilities.

3.2.5.3. Feedback. A simple review is insufficient; establish a feedback system to ensure effective corrective or preventive actions.

3.2.5.3.1. The feedback system must analyze any newly identified hazards during missions or activities and implement necessary corrective actions. Feedback is crucial in informing all participants about the progress of the implementation process and whether the controls in place are adequate. It can take various formats, such as briefings, lessons learned, cross-tell reports, benchmarking, and database reports. Without this feedback loop, we cannot determine if past forecasts were accurate, contained errors, or were entirely incorrect.

3.2.5.3.2. Commanders, supervisors, and individuals must collaborate with the relevant RM process managers, Advisors, and Instructors to collect and disseminate written effective RM feedback and cross-tell information. This collaboration is crucial for enhancing future operations and activities.

3.3. Real-Time RM. RTRM is a less formal approach to risk assessment that employs basic RM process steps to identify and mitigate hazards in new or evolving situations. While it is also based on the standard 5-Step RM Process, it is essential to streamline these steps when quick risk decisions must be made in real-time.

3.3.1. Identifying and Assessing Hazards. Identifying and assessing hazards in a time-critical environment typically occurs during an ongoing planned activity or when the complexity or overall risk perception is low. Effective hazard identification and assessment involve understanding the potential adverse effects of those hazards and risks. It is crucial for individuals to carefully consider the activity or action they are about to take and select appropriate mitigation strategies for the identified hazards. In RTRM, a thorough assessment of the situation requires three stages of situational awareness within a limited timeframe:

3.3.1.1. Perceiving what is happening.

3.3.1.2. Integrating information and setting goals.

3.3.1.3. Projecting future outcomes. Unlike Deliberate RM, where there is ample time to evaluate potential situations, the ability to quickly identify problems and apply available resources effectively can mean the difference between success and failure.

3.3.2. Develop Controls. After assessing the situation, personnel will consider all available controls and resources to ensure the success of the mission or activity and determine how to manage them effectively. The scope and availability of these controls can vary depending on the situation. Those who are better prepared before an activity will likely have access to more controls and resources, allowing them to create multiple redundancies or blocks to effectively eliminate or mitigate potential risks in real time. Examples of effective controls and resources include having a thorough understanding of the situation, receiving proper training, wearing appropriate PPE, recognizing personal limitations, and having a wingman/guardian to support

their efforts. Each factor acts as a layer of protection, enhancing a decision-maker's ability to balance risk versus reward through proper preparation and comprehension of the situation and available options. When making these considerations, it is also crucial for Airmen and Guardians to communicate with their team and leadership to ensure that all options and resources are effectively utilized, allowing for sound and timely risk decisions.

3.3.3. Communication. Communication can take many forms. It may involve real-time discussions with leadership to address problems and intentions. Internal team and crew communication can focus on identifying real-time hazards and exploring mitigation options. Additionally, individuals may take the time to reflect on their current situation to ensure they are making the right choices. This process assumes that individuals or teams carefully evaluate the available options and controls in real-time scenarios. They should understand how perception and communication skills can change in unexpected and evolving environments.

3.3.3.1. As individuals become increasingly stressed, their perception and communication skills suffer, leading to a loss of situational awareness. Excessive pressure to succeed or adhere to a plan, even when conditions necessitate adjustments, can have a negative impact on individuals or team members as they attempt to adapt. In high-stress situations, communication skills decline as people become overly focused on specific issues, losing sight of the broader problem. This can result in tunnel vision, making it difficult for them to multitask effectively in response to changing circumstances.

3.3.3.2. Understanding this, individuals and teams in challenging situations can better prepare, anticipate potential issues, and recognize when they or others are losing situational awareness. This awareness empowers individuals to communicate effectively with teammates and leadership during real-time scenarios. It also allows them to pause and reevaluate their options.

3.3.3.3. When considering implementing a mitigation strategy in real-time, it's important to ask key questions such as, Who needs to be informed about the situation? Who can assist? Who can offer backup, or is there an alternative approach to this issue? These are just a few examples of the critical considerations to keep in mind.

3.3.4. Making Decisions. Unlike the deliberative RM approach, which involves carefully developing and executing an implementation strategy by identifying the who, what, when, where, and costs associated with the control before an activity, RTRM focuses on immediate or near-immediate actions taken by individuals or small groups to mitigate risks in real-time when problems are detected while implementing deliberative RM. This immediate nature can make RTRM decisions riskier than those made through a deliberate RM process. Individuals need to understand this and make a concerted effort to carefully evaluate their risk decisions before taking action, ensuring they choose the best course of action.

3.3.5. Implement Controls. Occasionally, the original plan should be modified to address unforeseen issues to ensure success. While minor changes to a plan or strategy can often be implemented quickly, significant modifications may require approval from higher authority (if available) to appropriately assess the risks and determine the best course of action. In these circumstances, accountability lies solely with the individuals involved in the activity. They are responsible for fully understanding the scope and limits of their Go/No-Go decision and acting accordingly.

3.3.5.1. The acceptance of risk and its associated consequences must be taken seriously, as any adverse outcomes from a chosen course of action can affect not only the individual but also their family, friends, coworkers, and overall contribution to the DAF mission.

3.3.5.2. The goal of any mission or activity is to achieve success and operate safely. However, the appropriate level of authority should consider abandoning the mission or activity if the situation becomes too risky or costly to continue, mainly when no reasonable options or strategies are available to alter the circumstances in the remaining time.

3.3.6. Supervise and Evaluate. Both leadership and personnel involved in a mission or activity will ensure that the feedback loop—specifically the Evaluate aspect of the RM process—is executed. This critical process ensures that individuals follow through and complete the 5-Step process by identifying what worked and what did not. Documented lessons learned should be shared to improve performance and mitigate risks in future activities. Key questions that leaders, teams, and individuals can ask during debriefs include: Was our assessment accurate? Were we lucky? How well did we use the controls and resources? Was the communication effective? What can we do to improve future events? These questions help ensure that future activities are improved, and risks are reduced.

3.3.7. Knock-it-off and Timeout Concepts. Integral to RTRM are the concepts of Knock-it-off and Timeout during an ongoing operation or activity. These concepts are essential in ensuring all personnel feel empowered to identify concerns or inform others about a potentially hazardous situation. Verbalizing either term sends a message to those involved in a specific action to stop, take a moment to reset, and reevaluate the current situation. These terms should be essential to all on and off-duty operations and activities. Critical aspects of these concepts include:

3.3.7.1. All Airmen and Guardians, regardless of rank/grade or position, are empowered to use these terms without fear of repercussions.

3.3.7.2. When either term is used, all current actions must be immediately halted, and the situation should be stabilized to a safe position to evaluate the specific concern. This is non-negotiable and cannot be overridden by command authority.

3.3.7.3. The alerts provided by using these terms do not prevent actions from continuing after safety and risk concerns have been addressed, but they give all personnel a means to effectively mitigate risk through immediate intervention in any evolving operation or activity.

Chapter 4

RISK MANAGEMENT TRAINING

4.1. Training Resources.

4.1.1. DAF Risk Management Fundamentals Course. This course introduces the DAF RM process, goals, concepts and principles associated with Deliberate and Real-Time RM situations both on and off-duty. This course is mandatory for all DAF personnel, military and civilian, and will be completed by accessing the approved DAF Risk Management Fundamentals computer-based training course via the DAF Digital Learning Services myLearning platform or another learning management system as determined by AFSEC. **(T-1)**

4.1.2. Risk Management Application and Integration (RM A&I) Train-the-Trainer Course. This is an advanced training course following the DAF Risk Management Fundamentals course. It is mandatory for all DAF RM Process Managers, Advisors, and Instructors. **(T-1)** This course will be completed through classroom-based or virtual-based instruction hosted at AFSEC or an AFSEC instructor-led roadshow course at a host-installation or via AFSEC instructor-led Microsoft Teams course. **(T-1)** Authorized course instructors will use approved AFSEC courseware materials sourced from the AFSEC Training and Force Development Division (AFSEC/SET). **(T-1)** AFSEC road show courses and instruction requests will be coordinated through MAJCOM/FLDCOM training managers and AFSEC/SET. Requests will be approved or disapproved on a case-by-case basis.

4.1.3. The Risk Management Application and Integration Field Course (RM A&I Field). This course is designed for individuals or organizations needing a more comprehensive understanding of RM principles, resources, tools, and applications.

4.1.3.1. The RM A&I Train-the-Trainer course graduates are the only authorized instructors to teach the RM A&I Field Course. **(T-1)**

4.1.3.2. Course instructors will use only approved AFSEC courseware materials from the AFSEC Risk Management AF Portal site. **(T-1)**

4.1.3.3. Course instructors will award the approved certificate to RM A&I Field Course graduates using the certificate template on the AFSEC Risk Management AF Portal site. **(T-1)**

4.1.3.4. The RM A&I Field Course will be delivered as designed, with no modifications authorized without the approval of the DAF RM Program Manager. **(T-1)**

4.1.4. Risk Management Annual Refresher Training (RM ART). This training is mandatory for all DAF personnel, military and civilian. **(T-1)**

4.1.4.1. RM ART must include, at a minimum, the 5-Step RM Process, Deliberate vs. Real-Time RM, risk decision-making authority, individual responsibilities, and a minimum of one practical exercise or applied real world deliberate risk assessment event. **(T-1)**

4.1.4.2. Training materials that support RM ART including PowerPoint slides, and exercise example scenarios are available on the AFSEC Risk Management AF Portal site. Units will tailor these materials to meet local training needs and mission priorities.

4.1.4.3. Completion of RM ART will be documented by Unit Training Managers (UTMs) within the DAF's enterprise learning management system, MyLearning, using the Risk Management Annual Refresher Training entry. **(T-1)**

4.2. Training Requirements.

4.2.1. RM Program Manager, Process Managers, Advisors and Instructors will:

4.2.1.1. Be trained in Risk Management Fundamentals Course as outlined in **paragraph 4.1.1**. **(T-1)**

4.2.1.2. Complete the RM A&I Train-the-Trainer course as outlined in **paragraph 4.1.2** **(T-1)** This training is a mandatory, one-time requirement for all officially designated RM Process Managers, RM Advisors, and RM Instructors. The training must be completed at the earliest opportunity, but no later than six months after RM duties are assigned. **(T-2).**

4.2.2. All DAF personnel will accomplish the Risk Management Fundamentals Course via one of the options outlined in **paragraph 4.1.1**. **(T-2)**

4.2.2.1. This training is a mandatory, one-time requirement and must be completed by all DAF personnel. **(T-1)** New or incoming personnel will be trained no later than 60 days after reporting to their first permanent duty station or assignment (120 days of initial duty station or assignment for Air Force Reserve and ANG personnel). **(T-2)**

4.2.2.2. Currently assigned personnel who have completed any previous version of the Risk Management Fundamentals Course and have documented this training IAW **paragraph 4.3** are not required to re-accomplish the training. **(T-1)** Personnel who have not completed the current or prior version of the course must do so as soon as practical, and no later than 120 days after notification of the training discrepancy. **(T-2)**

4.3. Training Documentation. All personnel will ensure all required DAF RM training is properly documented within their official training records. **(T-2)** DAF RM Fundamentals Course and the RM Annual Refresher Training will be documented within the DAF's enterprise learning management system (MyLearning). **(T-1)**

Chapter 5

RISK MANAGEMENT APPLICATION AND INTEGRATION

5.1. Risk Management Application and Integration. RM is foundational to the DAF, ensuring mission success and operational readiness. Identifying, assessing, and mitigating risks allows Airmen/Guardians to operate effectively in dynamic and complex environments. While integrating RM principles into DAF processes provides a structured framework, their application ensures these principles translate into actionable practices.

5.2. Establishing a Risk Management Framework. The DAF will adopt a structured and comprehensive RM framework tailored to its operational objectives. This framework will align with DAF doctrine and integrate RM principles into instructions, policies, and standards. Roles and responsibilities must be clearly defined to ensure commanders, RM process managers, advisors, instructors, supervisors, managers, and personnel understand their duties. Repeatable processes for identifying, analyzing, mitigating, and documenting risks are essential to maintaining consistency and effectiveness.

5.3. Leadership and Culture. Leadership plays a pivotal role in RM application and integration. Commanders must demonstrate a commitment to RM by setting clear priorities and allocating resources accordingly. Building a risk-aware culture encourages personnel to prioritize risk and mission assurance. Open communication, regular training, and recognition of proactive risk mitigation efforts further reinforce this culture.

5.4. Tools and Technologies. Modern tools and technologies like the Joint Risk Assessment Tool (JRAT – **https://jrat.safety.army.mil**) are vital for streamlining RM processes. JRAT automates risk documentation, reducing administrative burdens and ensuring accuracy. The DD Form 2977, *Deliberate Risk Assessment Worksheet,* provides a consistent framework for documenting risks and controls. Integration of these tools with existing systems enhances interoperability and operational efficiency.

5.5. Practical Application: 5-Step Process. RM must be seamlessly embedded into all operations. The DAF will utilize the 5-Step Process IAW **paragraph 3.2** to ensure that appropriate RM framework is applied and maintained throughout evolving operations.

5.6. Training and Education. Regular training ensures personnel remain proficient in RM practices. Tailored modules, scenario-based exercises, and refresher courses enhance skillsets. Ongoing education ensures personnel are equipped to handle unique challenges and adapt to evolving requirements.

5.7. Measuring Effectiveness.

5.7.1. Metrics provide insights into the success of RM activities. Key indicators include incident reduction rates, compliance with standards, and time saved through automation. Reviewing these metrics ensures continuous improvement and resource optimization.

5.7.2. Metrics must be considered in conjunction with the mission environment they are measuring. Leadership should take care not to confuse metrics with actual performance when environmental conditions change.

5.8. Interoperability and Joint Operations. RM integration must extend to joint and coalition forces. **(T-2)** Shared tools, unified protocols, and collaborative training exercises enhance mutual understanding and operational coherence.

5.9. Feedback and Continuous Improvement. Feedback mechanisms are essential for refining RM practices. Post-mission debriefings, surveys, and performance reviews provide valuable insights.

5.10. Advanced Technologies. Emerging technologies, such as Artificial Intelligence (AI)-driven risk analysis and real-time monitoring systems, offer new opportunities to enhance RM. Integrating these tools with JRAT and other frameworks allows for proactive hazard identification and mitigation, keeping the DAF ahead of evolving threats.

5.11. Conclusion. Integrating and applying RM principles is essential to the DAF's mission success. By combining structured Risk Management frameworks with practical applications, leveraging modern tools, and fostering a culture of continuous improvement, the DAF can mitigate risks effectively while maintaining operational superiority. Commanders and Airmen/Guardians must view RM as a dynamic, integral part of mission readiness, ensuring the success of personnel and operations in all environments.

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(ELLSWORTHAFB)

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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Abbreviations and Acronyms

(Added-ELLSWORTHAFB) 28 BW/SE—28th Bomb Wing Safety

AETC—Air Education and Training Command

(Added-ELLSWORTHAFB) AFGSC—Air Force Global Strike Command

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

AFR—Air Force Reserve

AFSEC—Air Force Safety Center

AFSOC—Air Force Special Operations Command

AF/SE—Air Force Chief of Safety

AI—Artificial Intelligence

ANG—Air National Guard

AU—Air University

(Added-ELLSWORTHAFB) BW—Bomb Wing

CAF—Comprehensive Airman Fitness

CFETP—Career Field Education and Training Plan

CJCS—Chairman of the Joint Chiefs of Staff

CJCSI—Chairman of the Joint Chiefs of Staff Instruction

DAF—Department of the Air Force

DAFI—Department of the Air Force Instruction

DAFMAN—Department of the Air Force Manual

DAFPAM—Department of the Air Force Pamphlet

DAF RM—Department of the Air Force Risk Management

DoD—Department of Defense

DoDI—Department of Defense Instruction

DRU—Direct Reporting Unit

(Added-ELLSWORTHAFB) EAFB—Ellsworth Air Force Base

FLDCOM—Field Command

FMEA—Failure Mode and Effects Analysis

FOA—Field Operating Agency

HAF—Headquarters Air Force

HAF MD—Headquarters Air Force Mission Directive

HQ—Headquarters

IAW—In accordance with

JRAT—Joint Risk Assessment Tool

MAJCOM—Major Command

MIL-STD—Military Standard

NAF—Numbered Air Force

PHA—Preliminary Hazard Analysis

PME—Professional Military Education

(Added-ELLSWORTHAFB) RDS—Records Disposition Schedule

RM—Risk Management

RM A&I—Risk Management Application and Integration

RTRM—Real-Time Risk Management

SAF—Secretary of the Air Force

SFSC—Space Force Specialty Code

SSA—System Safety Analysis

SSC—System Safety Command

VR—Virtual Reality

Office Symbols

AF/A1—Air Force Deputy Chief of Staff for Manpower, Personnel and Services

AF-A8—Air Force Deputy Chief of Staff for Plans and Programs

AF/SE—Air Force Chief of Safety

AFSEC/SEG—Air Force Safety Center/Occupational Safety Division

AFSEC/SET—Air Force Safety Center/Training and Force Development Division

SAF/AQ—Assistant Secretary of the Air Force for Acquisition, Technology and Logistics

SAF/IE—Assistant Secretary of the Air Force for Installations, Environment and Energy

SAF/SA—Director, Air Force Studies and Analysis

SAF/SQ—Assistant Secretary of the Air Force for Space Acquisition and Integration

SF/S1—Deputy Chief of Space Operations for Personnel

Terms

Cross-tell—The sharing and transfer of information between MAJCOMs/FLDCOMs/DRUs/ FOAs, units, working groups, Air Force personnel and military services.

Deliberate Risk Management—The pre-mission or activity planning, which involves the complete formal application of the 5-Step RM process, including an in-depth planning process (hazard identification, detailed data research, diagram and analysis tools, formal testing and long-term tracking of the risks associated with an operation, activity or system).

Department of the Air Force Risk Management Process Manager—Individual assigned by the AF/SE to act as the primary Air Force process manager for the overall AF RM Process. Provides oversight of the AF RM Process and is responsible for guidance and process direction to all HAF, DRU, FOA, FLDCOM and MAJCOM RM process managers.

Hazard—Any real or potential condition that can cause injury, illness or death of personnel or damage to or loss of equipment or property, mission degradation.

Knock-it-off/Timeout Concepts—A safety call, using sound risk management, made by any participant during an activity or operation, immediately halting all actions until the situation is stabilized to a safe position.

Lead Agent—Office or agency that has primary oversight of their DAF-level program to include oversight and development of guidance, policies, courseware, tools and techniques specific to their area of responsibility. SAF/AQ (or SAF/SQ, as appropriate) is the Lead Agent for Integrated Life Cycle Management, acquisition, test and systems safety RM-related issues, while AF/SE is the Lead Agent for mission and personal RM-related issues and concerns.

Lessons Learned—An observation that, when validated and resolved, results in an improvement in military operations or activities at the strategic, operational, or tactical level and results in long-term, internalized change to an individual or an organization.

Numbered Air Force—An operationally-oriented organization and serves as the DAF headquarters for a Unified Combatant Command, or subordinate unified command, when appropriate. The Numbered Air Force includes an Air Operations Center to provide command and control, and an "A Staff" to provide administrative and logistical support to assigned resources. With the exception of USAFCENT, a Numbered Air Force has two designations, both the Numbered Air Force designation (i.e., 7th Air Force), and a functional designation (i.e., United States Pacific Command, or USPACOM).

Principal Advocate—Office or agency that has primary responsibility for ensuring DAF RM principles, processes, tools and techniques are incorporated into functional areas within their agency and sub organizations and staffs. Principal advocates do not develop primary guidance, policies, courseware, tools or techniques pertaining to DAF RM; they simply act as the liaison between their agency and the DAF RM Process Manager.

Real-Time Risk Management—This level of risk management includes risk management decisions made in real-time, such as short notice taskings, responding to emergency situations or making spur of the moment decisions during tactical or training operations.

Risk—The probability and severity of loss or adverse impact from exposure to various hazards.

Risk Assessment—The process of detecting hazards and their causes, and systematically assessing the associated risks.

Risk Management—The systematic process of identifying hazards, assessing risk, making control decisions, implementing control decisions, and supervising and reviewing the activity for effectiveness.

Risk Management Instructors and Advisors—MAJCOM/FLDCOM/DRU/FOA, Wing, or Unit-assigned personnel who act as primary RM instructors or advisors for their functional area(s) of responsibility. They are responsible for providing RM expertise and functional-level RM training as necessary for their organization.

Risk Management Process Manager (HAF, DRU, FOA and MAJCOM)—Individual assigned by each HAF, DRU, FOA, FLDCOM or MAJCOM commander to act as the primary RM process manager for their organization. They are Primary members of the DAF RM Working Group and act as the commander's or director's direct liaison to the DAF RM process manager. In addition, they coordinate directly with all sub-organizations and assigned RM instructors or advisors to promote the DAF RM Process, as necessary.

Significant Mishap or Event—A Class A or B mishap or any other mishap or event deemed worthy of review by the organization's commander where lessons may be identified or learned for future application both in and outside the organization.

System—A composite, at any level of complexity, of personnel, procedures, materials, tools, equipment, facilities, and software. The elements of this composite entity are used together in the intended operational or support environment to perform a given task or achieve a specific mission requirement.

System Safety—The application of engineering and management principles, criteria and techniques to achieve acceptable risk within the constraints of operational effectiveness and suitability, time and cost throughout all phases of the system life-cycle to optimize safety within the constraints of operational effectiveness and suitability, time and cost.

Well-being—A holistic state of physical, mental, social, and spiritual fitness that enables Department of the Air Force personnel to thrive in both personal and professional domains. Well-being supports sustained operational performance, resilience, and the ability to adapt effectively to stressors and challenges across the full spectrum of military life. It reflects the core components of Comprehensive Airman Fitness (CAF) and is integral to mission readiness and success.

Wingman Concept—A culture of Airmen and Guardians taking care of Airmen and Guardians, whether in uniform or not.

Zero-Defect—Having no errors or flaws.